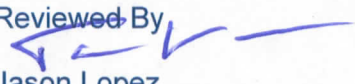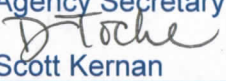| Fiscal Year 2016-17	Business Unit 5225	Department California Department of Corrections and Rehabilitation	Priority No. 2
Budget Request Name 5225-301-BCP-BR-2016-A1	Program **4500 – CORRECTIONS AND REHABILITATION ADMINISTRATION** **4585 – REHABILITATIVE PROGRAMS-ADULT EDUCATION**	Subprogram **4500039 – INFORMATION TECHNOLOGY** **4585019 – VOCATIONAL EDUCATION - ADULT**	

Budget Request Description

Career Technical Education (CTE) Curricula and Certification Compliance Project

Budget Request Summary

The California Department of Corrections and Rehabilitation (CDCR), Division of Rehabilitative Programs (DRP) requests $4.090 million General Fund and 7.0 permanent positions in FY 2016-17, $1.966 million General Fund in FY 2017-18 and $1.396 million General Fund ongoing. This funding is for the Career Technical Education (CTE) Curricula and Certification Compliance project to bring CDCR's vocational infrastructure into compliance with industry certifications and curricula necessary to promote offender employment upon release.

Requires Legislation	Code Section(s) to be Added/Amended/Repealed
☐ Yes ☒ No	

Does this BCP contain information technology (IT) components? ☒ Yes ☐ No	Department CIO	Date
If yes, departmental Chief Information Officer must sign. Russell J. Nichols		3/28/2016

For IT requests, specify the date a Special Project Report (SPR) or Feasibility Study Report (FSR) was approved by the Department of Technology, or previously by the Department of Finance.

☒ FSR   ☐ SPR   Project No. 5225-162   Date:

If proposal affects another department, does other department concur with proposal?   ☐ Yes   ☐ No
Attach comments of affected department, signed and dated by the department director or designee.

Prepared By	Date	Reviewed By	Date
Tina Bayles	3/28/16	Jason Lopez	3/28/2016
DRP Director (A)	Date	Agency Secretary	Date
Brantley R. Choate, Ed.D.	3/28/16	Scott Kernan	3/29/2016

Department of Finance Use Only

Additional Review: ☐ Capital Outlay   ☐ ITCU   ☐ FSCU   ☐ OSAE   ☐ CALSTARS   ☐ Dept. of Technology

BCP Type: ☐ Policy   ☐ Workload Budget per Government Code 13308.05

PPBA	Date submitted to the Legislature 4/1/16

BCP Fiscal Detail Sheet

BCP Title: Career Technical Education Curricula and Certification Compliance Project

DP Name: 5225-301-BCP-DP-2016-A1

Budget Request Summary

		CY	BY	BY+1	BY+2	BY+3	BY+4
					FY16		
Positions - Permanent		0.0	7.0	7.0	7.0	7.0	7.0
Total Positions		**0.0**	**7.0**	**7.0**	**7.0**	**7.0**	**7.0**
Salaries and Wages							
Earnings - Permanent		0	546	546	546	546	546
Total Salaries and Wages		**$0**	**$546**	**$546**	**$546**	**$546**	**$546**
Total Staff Benefits		0	246	246	246	246	246
Total Personal Services		**$0**	**$792**	**$792**	**$792**	**$792**	**$792**
Operating Expenses and Equipment							
5301 - General Expense		0	89	67	59	59	59
5302 - Printing		0	9	9	9	9	9
5304 - Communications		0	433	51	17	17	17
5306 - Postage		0	4	4	4	4	4
5320 - Travel: In-State		0	46	46	21	21	21
5322 - Training		0	33	4	4	4	4
5340 - Consulting and Professional Services - Interdepartmental		0	2	2	2	2	2
5340 - Consulting and Professional Services - External		0	509	509	6	6	6
5346 - Information Technology		0	2,137	457	457	457	457
5368 - Non-Capital Asset Purchases - Equipment		0	36	25	25	25	25
Total Operating Expenses and Equipment		**$0**	**$3,298**	**$1,174**	**$604**	**$604**	**$604**
Total Budget Request		**$0**	**$4,090**	**$1,966**	**$1,396**	**$1,396**	**$1,396**

Fund Summary

Fund Source - State Operations

		CY	BY	BY+1	BY+2	BY+3	BY+4
0001 - General Fund		0	4,090	1,966	1,396	1,396	1,396
Total State Operations Expenditures		**$0**	**$4,090**	**$1,966**	**$1,396**	**$1,396**	**$1,396**
Total All Funds		**$0**	**$4,090**	**$1,966**	**$1,396**	**$1,396**	**$1,396**

Program Summary

Program Funding

4500039 - Information Technology	0	945	934	934	934	934
4585019 - Vocational Education-Adult	0	3,145	1,032	462	462	462
Total All Programs	**$0**	**$4,090**	**$1,966**	**$1,396**	**$1,396**	**$1,396**

Personal Services Details

Positions		Salary Information			CY	BY	BY+1	BY+2	BY+3	BY+4
		Min	Mid	Max						
1312 -	Staff Info Sys Analyst (Spec) (Eff. 07-01-2016)				0.0	2.0	2.0	2.0	2.0	2.0
1373 -	Sys Software Spec II (Tech) (Eff. 07-01-2016)				0.0	4.0	4.0	4.0	4.0	4.0
1587 -	Sys Software Spec I (Tech) (Eff. 07-01-2016)				0.0	1.0	1.0	1.0	1.0	1.0
Total Positions					**0.0**	**7.0**	**7.0**	**7.0**	**7.0**	**7.0**

Salaries and Wages		CY	BY	BY+1	BY+2	BY+3	BY+4
1312 -	Staff Info Sys Analyst (Spec) (Eff. 07-01-2016)	0	148	148	148	148	148
1373 -	Sys Software Spec II (Tech) (Eff. 07-01-2016)	0	324	324	324	324	324
1587 -	Sys Software Spec I (Tech) (Eff. 07-01-2016)	0	74	74	74	74	74
Total Salaries and Wages		**$0**	**$546**	**$546**	**$546**	**$546**	**$546**

Staff Benefits							
5150450 -	Medicare Taxation	0	8	8	8	8	8
5150500 -	OASDI	0	34	34	34	34	34
5150600 -	Retirement - General	0	101	101	101	101	101
5150800 -	Workers' Compensation	0	12	12	12	12	12
5150900 -	Staff Benefits - Other	0	91	91	91	91	91
Total Staff Benefits		**$0**	**$246**	**$246**	**$246**	**$246**	**$246**
Total Personal Services		**$0**	**$792**	**$792**	**$792**	**$792**	**$792**

A.   Budget Request Summary

The California Department of Corrections and Rehabilitation (CDCR), Division of Rehabilitative Programs (DRP) requests resources and funding for the Career Technical Education (CTE) Curricula and Certification Compliance Project, which will bring CDCR's current vocational infrastructure into compliance with industry certifications and curricula necessary to promote offender employment upon release. This infrastructure allows online access for classroom coursework, real-time shop exercises, and certification exams while providing inmate-students digital literacy skills and enhanced professional development. This request consists of the following funding and position authority (both one-time and on-going):

	(Dollars in Thousands)		
	2016-17	**2017-18**	**2018-19**
One-Time Funding	$3,145	$570	
Ongoing Funding	$945	$1,396	$1,396
Total	**$4,090**	**$1,966**	**$1,396**

The requested 7.0 permanent positions are from the Enterprise Information Services (EIS) Division and will be necessary in the implementation and support of this initiative. Specifically, EIS is requesting 4.0 System Software Specialists (SSS) II (Technical), 1.0 SSS I (Technical), and 2.0 Staff Information Systems Analysts (Specialist).

B.   Background/History

The CTE Program
The Department's Office of Correctional Education (OCE) delivers CTE. The program prepares inmate-students with viable, industry required skills, course content to ensure skill attainment, and provides recognized certifications to promote offender employment upon release, in an effort to ultimately reduce recidivism. Additionally, CTE programs provide inmates with the opportunity to earn milestone credits, which can reduce inmates' time of incarceration through the active participation and completion of certain rehabilitative programs.

The OCE provides 19 CTE programs with a total capacity of approximately 8,450 inmates. CTE programs currently use a combination of file and written material, as well as audio and video media, from physical CDs and DVDs, to provide instruction across these programs. Inmates currently receive classroom training from instructors, and take CTE certification tests using written and hands-on proof of learning methods in the CTE designated areas within the institutions. However, commercial vendors are progressively moving their information content to digital-network media (e.g., Internet, organizational intranet, local area network) and are discontinuing the physical and paper-based media, standalone computer software loading, including the critical certification testing and issuance process. This renders the current method of physical and paper based methods obsolete. There is currently no mechanism in place to support online access for inmate-student use in the CTE shops or classroom areas.

Five certification exams are now only offered exclusively online: Automotive Service Excellence (ASE) - Auto Mechanics; Inter-Industry Conference on Auto Collision Repair (ICAR) – Auto Body; Electronic Technician Association (ETA) – Electronics; Office Service and Related Technologies (OSRT); and Computer Literacy (includes computing fundamentals and Microsoft certification). Five out of nineteen or twenty-six percent (26%) of CTE programs will not meet the completion requirements for inmates to take the certification exams. These five programs combined make up approximately 5,000 of the total CTE capacity of approximately 8,450. Additionally, the remaining twelve programs are beginning to migrate their text books, teacher resources, and instructional videos to an online or digital format, while two programs are migrating to digital only. The current system is no longer sustainable for students without access to a secured Internet.

C.   **State Level Considerations**

To ensure public safety, the Department has an obligation to prepare offenders for their release back into society. The Department provides an environment conducive to an inmate's participation in academic, vocational and rehabilitative programs. As stated in *The Future of California Corrections: A Blueprint to Save Billions of Dollars, End Federal Court Oversight and Improve the Prison System* (CDCR Blueprint) "…increasing access to rehabilitative programs will reduce recidivism by better preparing inmates to be productive members of society." Doing so will help lower the long-term prison population and save the state money.

The goal of CTE is to provide inmate-students with a marketable trade that improves opportunities for employment upon release. The Department believes that addressing some of the technology related issues that are challenging the CTE programs will allow it to once again provide certification for out-of-compliance CTE programs. With a CTE course certification the inmate-student is able to demonstrate industry accepted work standards which improve their chances upon release of finding employment in a field that will pay former offenders a livable entry wage.

D.   **Justification**

This request is critical for inmates to attain the job skills necessary to compete for employment opportunities once they are released from prison. Up to 5,000 total inmate-students could be adversely impacted if this request is not approved. The CTE programs require the state to establish classrooms, hire teachers, identify and procure equipment to meet industry standards and ensure the potential for inmate-students to earn a livable wage.

The CTE program is important for the Department as it supports the following statutory and programmatic requirements and guidelines:

- Chapter 784, Statutes of 2013 (AB 494), Literacy and Education
    - AB 494 amended Section 2053.1 to ensure that upon parole inmates are able to achieve specific academic and digital literacy goals.
- Chapter 789, Statutes of 2013 (AB 1019), Correctional Education and Vocational Training
    - AB 1019 amended Section 2053.4 of the California Penal Code directing literacy, academic and related programs of offenders to meet specific goals set by the Superintendent of Correctional Education in fields being trained and the availability of employment in those fields.
    - AB 1019 added Penal Code 2053.5 addresses Career Technical Education (CTE) that requires CTE to align with workforce needs, job market demand, marketable and industry or apprenticeship requirements, including recognized certification, credential, or degree.
- CDCR Blueprint alignment (2012)
    - Career Technical Education, page 22, "Because the goal of career technical education is to ensure that offenders leave prison with a marketable trade, the vocational programs will target inmates with a criminogenic need for employment services who are closer to release. These programs will continue to be geared toward vocational programs that provide offenders with certification in a marketable trade that will pay former offenders a livable entry wage."

A digital environment is critical for our inmate population to increase their literacy, enforce positive habits, and instill a purpose to reintegrate into society effectively while implementing safeguards against misuse. Five certification exams are now only offered exclusively online; therefore, five (5) out of nineteen (19), or twenty-six percent (26%) of the programs do not meet the completion requirements for inmates to take the certification exams and are out of compliance with federal and state directives and mandates. In addition, many of the other currently offered CTE programs are moving towards online platforms for their trades resulting in fewer pen and paper based programs available for the Department to offer inmate-students. More specifically, of the nineteen programs currently offered:

- Five (5) programs offer only online certification exams (a total of 25 certifications). These five programs combined make up about 60 percent of the approximately 8,450 total CTE capacity.

- Twelve (12) programs offer a combination of paper and online certification exams (a total of 90 certifications). Two (2) of those programs offer the paper certification exams for CDCR only on a temporary basis while the other programs allow CDCR to download an electronic file and print, also on a temporary basis

- One (1) program is a performance-based testing (actual examiner oversight of the examinee's proficiency of actual work)

- One (1) program is paper-based only, with no timeline to go to online testing (a total of 20 certifications)

In an effort to sustain the prison population reduction and Milestone Credit achievement, the CTE Curricula and Certification Compliance project proposes to provide controlled Internet access to career technical provider sites to allow inmate-students access to the latest CTE information and provide the most critical certification exams in areas no longer available via hard-copy written textbooks and exams. This also enables inmate-students to use computers to access online CTE training and certification-testing resources.

The proposed alternative remediates the certifications that are currently out of compliance such as ICAR auto body certification, ASE auto mechanics certification and Internet and Computing Code certification. This proposal will include the purchase and deployment of a few computers in those selected career technical classrooms statewide as well as the implementation of wireless services for these computers to access the provider career technical sites for coursework, career technical documentation and certification exams. Additionally, career technical shops within the institutions with certifications which are out of compliance will have network drops installed to the related career technical equipment to allow direct access to the provider career technical site for shop equipment upgrades, maintenance and troubleshooting by the provider career technical site.

The proposal will require hardware (PCs, ADA compliant equipment, network equipment (such as firewalls, switches, wireless access points, controllers, servers, etc.)), software (Microsoft PC software, McAfee anti-virus protection, ADA compliance software, wireless software, wi-fi planning and site survey tool software, etc.), contract services (Project Manager, Technical Architect, Project Oversight), telecommunications cabling, etc. Seven EIS positions will be required to provide the following implementation and on-going support Information Technology (IT) services:

- Network Services to support and troubleshoot problems with the Inmate Ward Secure Network (IWSN);
- Enterprise Server Services to support and troubleshoot problems with IWSN servers and storage infrastructure;
- Wireless data communications and Access Point monitoring to support and troubleshoot problems with the enterprise wireless network infrastructure;
- Information Security (IS) Monitoring for active network monitoring to verify that inmates are not communicating outside of the facility or re-victimizing the public via the internet or through e-mail access;
- Security Auditing to check for un-allowed communication from and between Inmates and the public;
- EIS Institution Field Support staff to provide support at the Institutions for the additional PC devices.
- EIS Headquarters services to create, deploy, and maintain networked inmate education PC images.

In order for this solution to be cost effective while providing opportunities for industry standard certifications and job skills for offenders, CDCR's CTE solution addresses immediate need as known for the next three years. CDCR will evaluate industry trends annually to ensure it positions itself to sustain curricula and certifications for courses currently taught. This move includes implementing a full complement of interactive-capable workstations and equipment available to the inmate-student in both

the shop and classroom setting. Analysis from this project will assist in forming cost-savings opportunities for further expansion.

E.   Outcomes and Accountability

The CTE Curricula and Certification Compliance project will be measured by the performance criteria defined in this section. The measures are used to determine the effectiveness of projects implemented to satisfy AB 494 and AB 1019 as part of this request. Since AB 494 requires implementing literacy programs designed to ensure that upon parole inmates are able to achieve the goals specified in the bill, programming must be expanded as measured by:

- Program Availability – the amount of time throughout a given day that vocational programming is available.

- Program Volume – the number of vocational programs that are available to offenders.

- Program Accessibility – the number of offenders who can be served by vocational programs.

- Expand Institution Coverage – the number of institutions that have vocational programming for offenders.

- Expand Computer-Assisted Training – the use of various technologies to assist offenders to gain access to vocational programs. Most new training offered by industry programs must be delivered with the use of a computer assisted by some form of workflow to complete courses or certification exams.

Projected Outcomes

Workload Measure	BY	BY+1	BY+2
Program Availability	In 2016-17, Education Advancement Phase 2-CTE improvements are not yet in place due to procurement lead time.	In 2017-18, online vocational courses will begin to be available in some institutions	In 2018-19, availability of CTE will be enabled through online services
Program Volume	In 2016-17, Education Advancement Phase 2-CTE improvements are not yet in place due to procurement lead time.	In 2017-18, CTE courses will begin to allow individualized training and certification	CTE courses will allow completion that could also accelerate results and increase volume
Program Accessibility	In 2016-17, Education Advancement Phase 2-CTE improvements are not yet in place due to procurement lead time.	In 2017-18, CTE courses will require computer access and methods for expanding computer use as approved by the Information Security Officer (ISO)	In 2018-19, CTE courses will be available through expanded computer access as approved by the ISO
Expand Institution Coverage	In 2016-17, CTE will begin design, procurements, and proof of concept	In 2017-18, CTE implementation will start statewide	In 2018-19, implementations will be completed to optimize institution coverage for CTE program capabilities
Expand Computer-Assisted Training	In 2016-17, Education Advancement Phase 2-CTE improvements are not yet in place due to procurement lead time.	In 2017-18, CTE classrooms will start to be outfitted with computers that have access to specific sites for courses and certification testing	In 2018-19, implementations will be completed to optimize institution coverage for CTE program capabilities

The CTE Curricula and Certification Compliance project implementation objectives are as follows:

- provide access to the on-line only certifications to the inmate-student population,

- increase the number of on-line certified inmates, and

- increase the availability of on-line certifications.

Specific metrics for the objectives are contained in the table below:

Project Implementation Outcomes*

Workload Measure	CY	BY	BY+1	BY+2	BY+3	BY+4
Percentage of certification courses evolved to only digital-network media, for which CDCR provides access.	0% of CDCR subscribed Digital network media CTE courses	0% of CDCR subscribed Digital network media CTE courses	90% of CDCR subscribed Digital network media CTE courses (for the proof of concept site)	100% of CDCR subscribed Digital network media CTE courses	100% of CDCR subscribed Digital network media CTE courses	100% of CDCR subscribed Digital network media CTE courses
Count of online certified inmates within 24 months before being released	0 inmate online certifications	0 inmate online certifications	1,320 inmate online certifications	3,300 inmate online certifications	**	**
Percentage of possible inmate certifications that can be taken online.	0% inmate online certifications	0% inmate online certifications	6% inmate online certifications	20% increase inmate online certifications	40% increase inmate online certifications	100% increase inmate online certifications

* - See Attachment A
** - Dependent upon inmate population projection which is still pending.

F. Analysis of All Feasible Alternatives

Alternative 1:

Provide initial internet connectivity for the CTE classrooms and shops with programs currently out of compliance or anticipated to be out of compliance for certification in the next three years. Certification exams and exam/certification preparation will be available on a limited number of workstations and equipment at each CTE classroom and shop. The core wireless infrastructure for an inmate vocational network is put into place at all Institutions with wireless access points placed into the classrooms most critical for certification. This network is expandable to further meet the needs of the CTE trend to become more online based in its curriculum credentialing process. Hardwired connectivity will be used for vocational equipment due to its stationary positioning as well as the need for non-interrupted feeds of data during diagnostic and certification intervals. This equipment must be utilized in an online, real-time interactive basis during the testing and certification process.

Pros:

- Obtains compliance for CTE examinations/certifications currently and anticipated for in non-compliance in the next three years including those which require concurrent access to vocational equipment such as for ASE and ICAR. (These specialized certifications will be available only in those shops.)

- Moderate cost of 7 new PYs and 6.8 redirected PYs (added at the request of Department of Technology). The funding request is $4.090 million in 2016-17, $1.966 million in 2017-18 and $1.396 million ongoing starting in FY 2018-19.
- Allows some access to exam preparation and on-line self-paced study.
- Allows for expandability for additional workstations within those classrooms which are connected making existing CTE investments in IT more effective.
- Alleviates discrepancies between testing engine version on the CDCR SharePoint site and all CTE computers as logging into the provider's site automatically updates the test engine on the computer.
- Allows instructors to spend more time in instruction instead of manually grading certification tests.

Cons:

- Students can not all utilize exam preparation or exam certifications at the same time but are limited to the number of connected workstations. Since students work on a self-paced basis, this could delay the progress of some students in the certification process.

Alternative 2:

Maintain stop-gap process (single location at each Institution) to provide certification for some of the most critical CTE programs such as Office Services and Related Technology (OSRT) and Computer Literacy.

Pros:

- Alleviates non-compliance for some of the most critical CTE programs.
- This alternative has the lowest cost of Information Technology implementation.

Cons:

- This alternative is labor intensive for Institution staff, requires offender movement scheduling for inmates to and from the single location in the institution where the certification exam access is located. The cost for this alternative would be at least 3 times the cost of the recommended proposal due to increased positions for custody staff at each institution to ensure safe movement, in addition to the cost of retrofitting the IT equipment.
- There is potential risk from the movement of inmates of different security levels to and from the exam certification location.
- Some of the exams/certifications require concurrent access to vocational equipment. This area of non-compliance would not be alleviated.
- Does not provide inmates the opportunity to study or practice online for the certification exam, potentially lowering their scores and likelihood of successful completion.
- Requires development, vetting and implementation of Institutional and Educational procedures for use.

Alternative 3:

Provide internet connectivity for test and certification preparation as well as certification at one lab (primarily OSRT or CL) or shop (where no OSRT or CL exists) per yard where CTE programs currently exist. Certification exams and exam/certification preparation will be available on a limited number of workstations at each location.

Pros:

- Alleviates non-compliance for some but not all of the most critical CTE programs.
- Moderate cost of 7 PYs, $4.3 million one-time, $3.7 million continuing and $1.4 million annually starting in FY 2018-19.
- Allows some access to exam preparation and on-line self-paced study.
- Allows for expandability for additional workstations within those classrooms which are connected.
- Alleviates discrepancies between testing engine version on the CDCR SharePoint site and all CTE computers as logging into the provider's site automatically updates the test engine on the computer.
- Allows instructors to spend more time in instruction instead of manually grading certification tests.

Cons:

- Some of the exams/certifications such as ASE and ICAR require concurrent access to vocational equipment. This area of non-compliance would not be alleviated.
- Students can not all utilize exam preparation or exam certifications at the same time but are limited to the number of connected workstations. Since students work on a self-paced basis, this could delay the progress of some students in the certification process.

Alternative 4:

Provide internet connectivity for test and certification preparation as well as certification for all CTE programs by providing an inmate network for the vocational classrooms and shops at all Institutions. Puts into place a complete framework for an inmate use vocational network at all Institutions with wireless access points connecting desktops in all classrooms and stable connectivity placed in all shops.

Pros:

- Provides compliance for all CTE examinations/certifications.
- Allows students to take examinations/certifications without the delay of waiting for an available connected workstation.
- Allows students to progress at their own rate on self-paced exam preparation or exam certifications.
- Reduces the amount to time to wait for certification results as online results are instantaneous.
- Adds the ability to include additional technical educational materials and certification testing as they become available.
- Alleviates discrepancies between testing engine version on the CDCR SharePoint site and all CTE computers as logging into the provider's site automatically updates the test engine on the computer.
- Allows instructors to spend more time in instruction instead of manually grading certification tests.

Cons:

- Alternative 4 is the highest cost option, requiring $15.5 million one-time and 21 permanent positions and 6.8 redirected positions, $4.7 million continuing, and $4.2 million annually starting in FY 2018-19.

G. Implementation Plan

Major Milestones	Est Complete Date
FSR Submittal	12/04/2015
Project Start Date	07/01/2016
Contract Award	07/31/2016
Project Planning Phase Complete (project documentation, schedule, WBS)	08/31/2016
Business and Technical Requirements Defined	10/31/2016
Procurement Phase Complete	02/28/2017
Schedule baselined	03/31/2017
Proof of Concept – one site complete	04/30/2017
Proof of Concept Site Acceptance Sign Off Complete	05/31/2017
Site Build Roll Out Complete	05/31/2018
Project Rollout Complete	06/30/2018
Maintenance and Operations Begins	07/01/2018
PIER	06/30/2019

H. Supplemental Information

See attachments

I. Recommendation

For the Department to be able to offer certifications in out-of-compliance CTE programs, Alternative #1 is recommended. Currently CDCR is losing certification capabilities as five certification exams are now only offered online. Five (5) out of nineteen (19), or twenty-six percent (26%) of the programs do not meet the completion requirements for inmates to take the certification exams. Many other CTE programs offered by CDCR are moving towards online platforms for their trades, which will result in fewer pen and paper based programs to be offered for inmate-students. This proposal also increases the institution infrastructure and ensures appropriate security capability is in place to deliver literacy and vocational training for offenders.

Career Technical Education (CTE) Curricula and Certification Compliance Project

Projected Outcomes - Attachment A

CTE Position Workload

CTE SSS II Infrastructure Network	BY Hours	BY+1 Hours	BY+2 Hours	BY+3 Hours	BY+4 Hours
Perform design and installation of the enterprise network infrastructure	450	350			
Perform 2nd and 3rd level support and troubleshooting of the enterprise network infrastructure	160	260	610	610	610
Perform all enterprise architecture and administrative functions related to the support of network infrastructure	200	200	200	200	200
Perform 2nd and 3rd level review and investigation of intrusion detection system alerts	100	100	100	100	100
Plan maintenance/acquisition of network hardware and software	100	100	100	100	100
Support enterprise data circuits	50	50	50	50	50
Support network routers, switches, firewalls, proxies, DHCP services and IP address	516	516	516	516	516
Support network administrative authentication	100	100	100	100	100
Document and manage network fiber and copper patch cabling	100	100	100	100	100
Total (1776 = 1 PY)					
	1776	1776	1776	1776	1776

CTE SSS II Server	BY Hours	BY+1 Hours	BY+2 Hours	BY+3 Hours	BY+4 Hours
Perform design and installation of the CDCR's physical and virtual servers	300	200	0	0	0
Perform all enterprise architecture and administrative functions related to the support of CDCR's physical and virtual servers	100	200	400	400	400
Perform 2nd, and 3rd level troubleshooting and administration of the enterprise server and storage infrastructure	440	440	440	440	440
Administer data protection, archival, backup, restore, and disaster recovery	300	300	300	300	300
Manage threat and security software and services	100	100	100	100	100
Perform server engineering and consulting for projects	120	120	120	120	120
Support performance monitoring	50	50	50	50	50
Perform 2nd, and 3rd level support of the enterprise AD, DNS, SCCM, EPO, and site certificates	156	156	156	156	156
Support server and systems security policies, administration standards and procedures	100	100	100	100	100

CTE Position Workload

Implement hardware and data migration, relocation, and consolidation	110	110	110	110	110
Total (1776 = 1 PY)					
	1776	**1776**	**1776**	**1776**	**1776**

CTE SSS II Wireless & AP Monitoring	BY Hours	BY+1 Hours	BY+2 Hours	BY+3 Hours	BY+4 Hours
Perform design and installation of the enterprise wireless network infrastructure	530	300			
Perform administration and troubleshooting of the enterprise wireless network infrastructure.	100	380	780	780	780
Perform all enterprise architecture and design tasks related to the support of the wireless network infrastructure	200	150	100	100	100
Perform 2nd and 3rd level review and investigation of the wireless intrusion detection system alerts	150	150	150	150	150
Plan and perform maintenance/acquisition and inventory tasks associated with wireless network hardware and software	150	150	100	100	100
Support wireless controllers, POE switches, firewalls, and WAPS	600	600	600	600	600
Support wireless administrative authentication	46	46	46	46	46
Total (1776 = 1 PY)					
	1776	**1776**	**1776**	**1776**	**1776**

Career Technical Education (CTE) Curricula and Certification Compliance Project

Projected Outcomes - Attachment A

CTE Position Workload

CTE SSS II Security Monitoring	BY Hours	BY+1 Hours	BY+2 Hours	BY+3 Hours	BY+4 Hours
Create and test security monitoring protocols.	400				
Receive, evaluate, process and document IT change requests relevant to applications, infrastructure, and fiber cabling that pertain to CDCR or shared services with CCHCS.	18	18	18	18	18
Receive, evaluate to determine risk, process and approve/disapprove documented firewall and proxy change request. Work with customer to reduce or eliminate risk if needed.	30	30	30	30	30
Respond to virus activity, data breaches, non-authorized access violations, violation of Federal, State Departmental regulations, Denial of Service attacks and phishing attacks.	116	116	116	116	116
Evaluate and analyze the department's information assets to make sure they are protected with a security architecture that implements security controls that provide: Application portioning, denial of service protection, boundary protection, confidentiality of transmitted information and cryptographic protection.	50	50	50	50	50
Conduct risk assessment that identifies the risk, likelihood and magnitude of a potential risk from the unauthorized access, use disclosure, disruption, modification, or destruction of departmental information assets.	60	60	60	60	60
Evaluate and assess application or system to ensure compliance with HIPAA, GC 1987, PCI-DSS, FERPA, etc. for new systems or changes	12	12	12	12	12
Evaluate, process and track data sharing requests to ensure non-CDCR entities present a minimal liability to the state. Ensure the appropriate levels of security for the data based on data categorization and classification are in place.	31	31	31	31	31
Scan network site to identify vulnerability and inform owners of risks mitigation strategy or corrective actions.	72	72	72	72	72
Ensure conformance to: Article 1, Section 1, of the Constitution of the State of California, The Information Practice Act, The State Records Management Act, The Comprehensive Computer Data Access and Fraud Act, The Health Information Portability and Accountability Act and Health Information Technology for Economic and Clinic Health Act, Family Education Rights and Privacy Act and Payment Card Industry standards.	12	12	12	12	12
Manage exemptions including individual and enterprise wide device exemptions. Review and approve remote access connections to the CDCR network infrastructure.	15	15	15	15	15

CTE Position Workload

Analyze potential security impact to organization and mission/business process functions resulting from changes to information systems and their environments of operation, along with the security impact to the enterprise architecture resulting from the addition or removal of information systems	243	643	643	643	643
Respond to potential security incidents to include identifying temporary solutions while minimizing risk the CDCR environment. Provide advance root cause analysis to identify or resolve issues that cause a significant impact to the CDCR environment.	4	4	4	4	4
Classification, identification of data, implementing access control policies and controls to prevent loss of confidential and sensitive data	750	750	750	750	750
Report information security incidents to external agencies	6	6	6	6	6
Total (1776 = 1 PY)					
	1819	**1819**	**1819**	**1819**	**1819**

CTE Position Workload

CTE SSS I Security Auditing	BY Hours	BY+1 Hours	BY+2 Hours	BY+3 Hours	BY+4 Hours
Ensure proper network partitioning	300	300	300	300	300
Audit and test desktop configurations	355	305	305	305	305
Review and investigate firewall logs	235	235	235	235	235
Conduct port scan and pen test to ensure CDCR staff network is not exposed	50	150	150	150	150
Review and investigate Internet proxy logs	170	170	170	170	170
Conduct test to ensure proper switch port configurations	200	100	100	100	100
Audit inmate file and applications server to assure proper permissions are in affect and that vulnerabilities are mitigated	55	155	155	155	155
Reporting of information security weaknesses	50	100	100	100	100
Conduct test of wireless access points and assure inmate wireless devices are restricted to designed wireless access points	205	205	205	205	205
Travel to sites	156	156	156	156	156
Total (1776 = 1 PY)					
	1776	1776	1776	1776	1776

CTE SISA RRSU	BY Hours	BY+1 Hours	BY+2 Hours	BY+3 Hours	BY+4 Hours
Create Images and Deploy - Includes, but is not limited to receiving component software, creating specialized images, testing specialized image, receiving hardware from the warehouse, unboxing, tagging, setting up on the mobile carts, downloading content and training the users (staff and inmates) on the new hardware. This also includes the ongoing, yearly refresh of replacement devices.	660	660	660	660	660
Content Updates - Includes, but is not limited to updating the devices with content and applying any security updates to the devices.	279	279	279	279	279
Inventory - Staff are resposible to maintain an accurate inventory of all hardware and software and verify the inventory once per quarter.	139.5	139.5	139.5	139.5	139.5
Patch - Includes, but is not limited to maintaining all security patches and updates on all hardware and software, and maintaining current CDCR versions of all software.	232.5	232.5	232.5	232.5	232.5
Testing, Development, and Troubleshooting - Includes, but is not limited to planning, developing, and testing new desktops and configurations, resolving all hardware and software issues, training users, doing preventive maintenance on all hardware and software.	465	465	465	465	465

Career Technical Education (CTE) Curricula and Certification Compliance Project

Projected Outcomes - Attachment A

CTE Position Workload

Total (1776 = 1 PY)					
	1776	1776	1776	1776	1776

CTE SISA Institution Field Support	BY	BY+1	BY+2	BY+3	BY+4
Deploy - Includes, but is not limited to receiving the hardware from the warehouse, unboxing, tagging, setiting up on the mobile carts, downloading content and training the users (staff and inmates) on the new hardware. This also includes the ongoing, yearly refresh of replacement devices.	455	455	455	455	455
Content Updates - Includes, but is not limited to updating the devices with content and applying any security updates to the devices.	379	379	379	379	379
Inventory - Staff are resposible to maintain an accurate inventory of all hardware and software and verify the inventory once per quarter.	139.5	139.5	139.5	139.5	139.5
Patch - Includes, but is not limited to maintaining all security patches and updates on all hardware and software, and maintaining current CDCR versions of all software.	232.5	232.5	232.5	232.5	232.5
Troubleshoot - Includes, but is not limited to resolving all hardware and software issues, training users, doing preventive maintenance on all hardware and software.	615	615	615	615	615
Total (1776 = 1 PY)					
	1821	1821	1821	1821	1821